



Evaluating the Efficacy of Emotional Intelligence Training versus Gradual Desensitization Methods for individuals with Social Phobia Disorder

Nasrin Hoseinpur¹, Zahra Dabbaghha², Mahsa Golchin³, Zeinab Amini⁴, Mitra Khodadadi^{5*}

¹ Department of psychology, Tehran Branch, Islamic Azad University, Tehran, Iran.

² Department of Psychology, Tehran Branch, Islamic Azad University, Tehran, Iran.

³ Graduated in Doctorate (general practitioner), Medical Azad university, Ardebil, Iran.

⁴ Department of Clinical Psychology, Sari Branch, Islamic Azad University, Sari, Iran.

⁵ Department of psychology, Sari Branch, Islamic Azad University, Sari, Iran.

Received: 25 November 2024

Accepted: 28 May 2025

Abstract

Background: Social phobia disorder, a pervasive and costly condition, often exhibits a weaker recovery rate compared to other phobia disorders in the absence of effective interventions, leading to a chronic course. This study aimed to compare the effectiveness of emotional intelligence training and gradual desensitization techniques in the treatment of clients with social phobia disorder.

Methods: This study utilized a quasi-experimental design, including pretest-posttest and follow-up assessments (3 months later), with control and experimental groups. The statistical population consisted of all individuals with social phobia disorder who sought counseling and psychological services in Tehran between July and October 2023 and had a documented history of psychological and counseling treatment for social phobia. The sample included 36 patients with social phobia disorder selected using purposive sampling. Participants were randomly divided into three groups of 15 people. The emotional intelligence experimental group participants received eleven 90-minute sessions twice weekly, while the gradual desensitization techniques group received nine 45-minute sessions twice weekly. The research tools included the Social Phobia Inventory (SPIN). The data were analyzed using Kruskal-Wallis H, ANOVA, and repeated measures analysis of covariance with SPSS 27 and JASP software version 18.1.0 at the significance level of 0.05.

Results: According to the findings, there was a significant difference between the Emotional Intelligence group and the Gradual Desensitization group in the post-test and follow-up stages. Gradual desensitization techniques were more effective in reducing avoidance behavior than the Emotional Intelligence method in the follow-up stage ($P\text{-value} < 0.001$). In terms of the fear variable, the Emotional Intelligence group and the Gradual Desensitization group showed a significant difference compared to the control group ($P\text{-value} < 0.01$). However, there was no significant difference found between the two experimental groups, indicating that the intervention methods did not produce significantly different outcomes.

Conclusions: The results of the current study indicate that both emotional intelligence training and regular desensitization techniques can be effective in reducing social phobia disorder. They help decrease fear and avoidance in clients, but they do not have an impact on physiological discomfort.

Keywords: Emotional intelligence, Gradual desensitization, Social phobia disorder.

*Corresponding to: M Khodadadi, Email: Khodadadi.mitra58@gmail.com

Please cite this paper as: Hoseinpur N, Dabbaghha Z, Golchin M, Amini Z, Khodadadi M. Evaluating the Efficacy of Emotional Intelligence Training versus Gradual Desensitization Methods for individuals with Social Phobia Disorder. Shahroud Journal of Medical Sciences 2025;11(1):32-42.

Introduction

A student avoiding class presentations due to fear of embarrassment reflects the disabling nature of social phobia, a disorder marked by persistent fear of negative evaluation. Affected individuals often avoid or endure social situations with distress, impairing daily functioning.¹ Social phobia typically emerges early in life and is characterized by intense fear and avoidance of various social situations, including interactions with strangers, being observed during everyday activities, and public performances; moreover, it frequently follows a chronic course and is accompanied by high rates of comorbid mental health disorders.^{2,3} The findings of a study on social phobia disorder indicated that it is more prevalent in teenagers and that the most common co-morbidities are other anxiety and behavioral disorders.⁴ According to a study, social phobia disorder is mostly maintained by interpretation bias, which involves catastrophizing even somewhat unpleasant social situations and reading negatively even when social events are unclear.⁵

Given the high lifetime prevalence of social phobia and its substantial impact on healthcare costs and daily functioning, it is crucial to explore effective treatment options. While pharmacological interventions remain foundational, growing evidence supports psychological approaches—particularly emotional intelligence training—as promising strategies to enhance therapeutic outcomes.¹ The impact of emotion on personality, body, mind, and health has received a lot of attention in the last few decades.⁶ Although emotions are a major part of daily life, different people have varying capacities for comprehending, processing, regulating, and using emotions in beneficial ways. This variability is reflected in the concept of emotional intelligence.⁷ Since a person's conscious perception of oneself and other people's emotions, self-control, and mastery all play a major role in their physical, mental, and social well-being, the theory of emotional intelligence is presented to use emotions to facilitate thinking.⁶ By improving the ability to recognize emotions, and unpleasant situations, and increase overall life satisfaction, a person with a high emotional intelligence level might shield themselves against



situations like sadness, tension, and anxiety.⁸ According to a study, there is a link between the occurrence of depression and anxiety symptoms and low emotional intelligence.⁹ Additionally, a study found that emotional intelligence can be applied to lessen anxiety and depressive symptoms.¹⁰

Regular desensitization is another strategy that involves teaching people to identify responses that are the opposite of fear. Studies have shown that those who regularly undergo desensitization are better equipped to handle situations that cause anxiety. Based on the idea of counterconditioning, desensitization is a therapy strategy that involves three rounds of deep muscle relaxation training. It involves delivering anxiety cues and creating a hierarchy of fear, then contrasting those with the sense of relaxation to prevent worry.¹² Regular desensitization is a type of psychological treatment based on a behavioral approach. This method involves progressively exposing the individual to the stimulus that is causing the problem while they are in a state of muscle relaxation. The work doesn't stop until the person is able to forget the stimulus that is causing the problem through gradual exposure.¹³ Desensitization therapy is beneficial in reducing social phobia and speech phobia symptoms in students with social phobia disorder, according to study findings.¹⁴ Desensitization has also been shown in studies to be a useful treatment for phobia disorders.¹⁵ Izzah et al.'s data from 2023 also demonstrated how well the desensitization strategy works to lessen public speaking fear.¹⁶

One of the most prevalent phobia disorders that negatively impact a person's life and are linked to an increase in suicide ideation is social phobia disorder. Additionally, a high proportion of co-morbidities associated with this illness enhance symptoms and contribute to worse outcomes, such as marked treatment resistance and impaired overall performance.³ Sadly, a sizable fraction of patients do not respond appropriately to first-line medication therapy. Currently, selective serotonin and norepinephrine reuptake

inhibitors are the first-line treatments for this illness.² Additionally, research shows that, in comparison to other phobia disorders, social phobia disorder responds poorly to general kinds of treatment.¹⁷ In order to lessen and ameliorate the issues associated with social phobia disorder, it is crucial to implement efficient therapeutic and educational treatments, especially considering the high incidence of the condition and the low rate of treatment seeking among afflicted patients. In addition, there is a study gap in this area since no studies have looked into the efficacy of gradual desensitization and emotional intelligence training in treating patients with social phobia disorder through earlier studies. One of the first research to examine the effects of gradual desensitization approaches and emotional intelligence training, the current study aims to determine which approach works better for clients with social phobia disorder.

Materials and Methods

The current research was a semi-experimental study with a pre-test, post-test, and follow-up design. It included a control group and two experimental groups, with a follow-up assessment conducted three months after the interventions. The statistical population consisted of clients with social phobia disorder who sought help at counseling and psychology clinics in Tehran from July to October 2023 and had existing psychological and counseling records related to social phobia. The presence of social phobia in research participants was confirmed in treatment clinics and by psychologists at each clinic according to DSM-V criteria. The sample for the study comprised 36 patients with social phobia disorder, selected through purposeful sampling and randomly assigned into two experimental groups and one control group (15 people in each group by default) using a random table randomization method. G-Power software determined the sample size adequacy based on these parameters: significance level (α)=0.05, effect size=0.25, power=0.95, three groups, and MANOVA test type (Figure 1).¹⁸

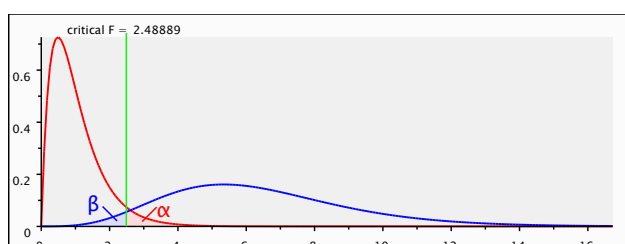


Figure 1. Sample size selection diagram with G-Power software

The sample size was calculated to be 42 people, but due to the potential for the sample size to decrease during the research, the researcher decided to have 15 people instead of 14 people in each group. The sample size for the study was determined to be 45 people. To participate in the study, individuals had to be at least 20 years old, have social phobia

disorder, be physically healthy enough to take part in the research intervention sessions, have a medical record at the research psychology clinics, have at least a minimum level of education (diploma level or higher), and have experienced social phobia for at least one year. The criteria for exiting the research were: having any condition preventing regular



attendance at intervention and treatment sessions, failing to attend therapy sessions (more than three in person), or withdrawing from the study.

The researchers conducted the research in stages, beginning with obtaining necessary permits from their university, followed by visits to psychology clinics. Two counseling centers in Tehran were selected using a confidential method to protect clinic names. In the following stage, the researcher discussed the research method and objectives with the clinics. Once they were approved, the researcher worked with the clinics' reception department to announce the availability of treatment methods for social phobia. Since two experimental groups were required (emotional intelligence training and gradual desensitization techniques), the researcher conducted each intervention method in a separate clinic. As a result, the researchers notified people involved in social phobia disorder about the intervention method and meetings. Similarly, the researcher coordinated with the clinics to publish information about the intervention sessions virtually on social networks and the clinics' official websites. The researcher sent a message containing intervention information to the individuals who had filed a medical case for panic disorder within the last year through the clinics themselves because the required number of intervention sessions was not reached through the website and announcement.

In the next step, individuals with social phobia disorder who submitted their information to the researchers regarding their interest in participating in the study were chosen in a specific and targeted manner according to the research criteria. After selecting 41 participants in the research, the researcher conducted initial interviews over the phone. In the end, the researchers chose 33 individuals and invited them to attend the clinics in person. In this step, the researchers provided them with the written information necessary to participate in the intervention sessions. In the same way, a follow-up interview

was conducted with clients suffering from social phobia disorder, allowing the researchers to gain further insight into their conditions. Some participants were excluded at this stage (3 people). The researchers used the consent form to obtain a written agreement to participate in the research. Then, using research tools, a pre-test was conducted on people. 15 people were selected from among the clients of the clinics. These individuals were not diagnosed with social phobia disorder and had been referred for other reasons. The information of 45 people was collected during the pre-test phase, including their responses to the Kanwar social phobia questionnaire. They were then randomly divided into three groups: an experimental group and two control groups. The experimental group was prepared to undergo the interventions. Eleven 90-minute sessions were held twice a week for the emotional intelligence test group, and nine 45-minute sessions were held twice a week for the gradual desensitization techniques group. According to the respective instructions, each experimental group received the designated number of training sessions, while the control group received no intervention and was placed on a waiting list. At the end of the research, the control group received an intensive course of gradual desensitization and Emotional Intelligence training sessions to comply with research ethics. Tables 1 and 2 summarize the treatment sessions for the Emotional Intelligence group, based on the training of Bradberry and Greaves,^{19, 20} and the group of gradual desensitization techniques, based on the training of Asadi Majareh et al.²¹ At the conclusion of the final session, the experimental groups completed the research questionnaires as a post-test. The CONSORT flowchart can be found in Figure 2. According to Figure 2, 45 participants were divided into three groups of 15 from the pre-test to the post-test phase. In the follow-up phase, 3 people in the first experimental group, 4 people in the second experimental group, and 2 people in the control group withdrew from the study.



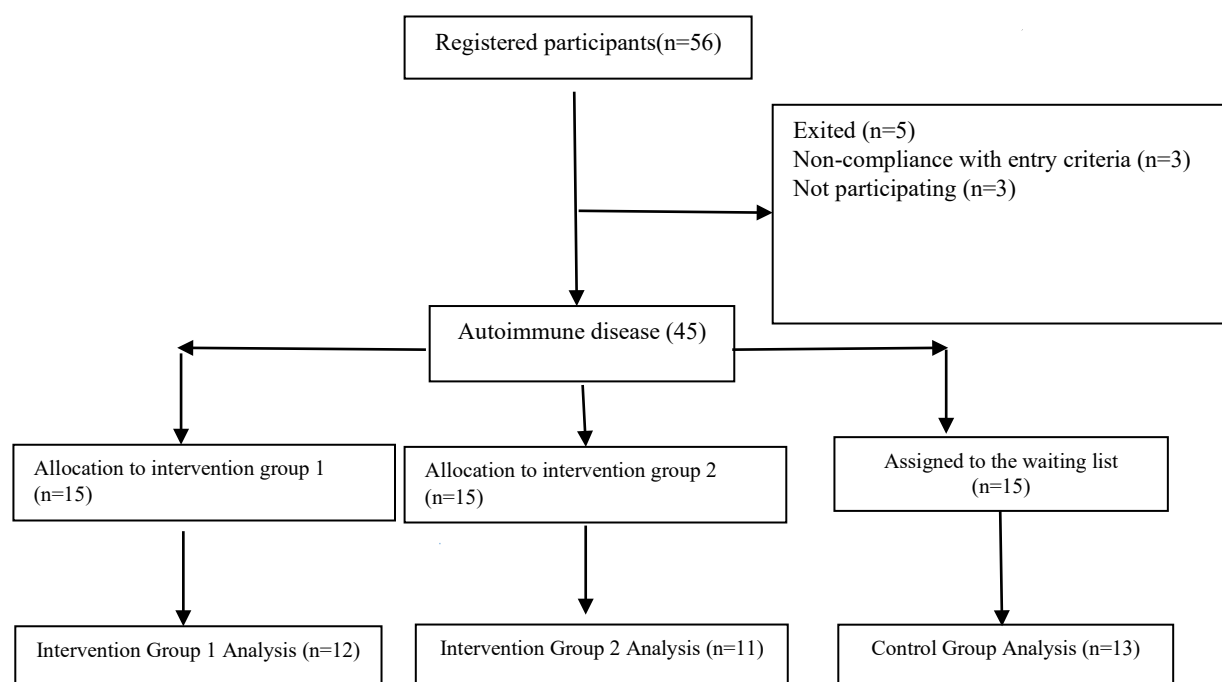


Figure 2. the flow diagram of the study

Table 1. A summary of Emotional intelligence training protocol

Session	Objectives	Content
First	Defining concepts and principles of conducting meetings	Pre-examination, introduction, and familiarization of group members, statement of group goals and rules, determination of topics and general structure of meetings, definitions, and description of emotion, the importance of emotional intelligence, presentation of homework
Second	Teaching emotion recognition and expression	Recognizing and teaching emotional and emotional words, teaching how to recognize and express appropriate faces using techniques such as stories and allegories, and paying attention to the face by looking at the mirror and poster
Third	Self-awareness training	Checking homework, defining emotional self-awareness and increasing emotional self-awareness and emotional control, understanding other people's emotions, receiving feedback, presenting homework
Fourth	Empathy training and practice	Checking homework, teaching active listening and empathy, receiving feedback, submitting homework
Fifth	Problem-solving training and practice	Homework review, problem-solving training focusing on emotional problem solving, receiving feedback, presenting homework
Sixth	Learning to recognize your emotions and receive feedback	Checking homework, controlling emotions through changing position, calming and emotional keywords, identifying unpleasant emotions that cause trouble, teaching responsibility for emotions, receiving feedback, providing homework
Seventh	Anger Management Training	Homework review, anger control and management training, anger consequences, ways to deal with anger, receiving feedback, presenting homework
Eighth	Practice all previous skills and use them in combination	Checking homework, reviewing past meetings, getting feedback from members regarding past meetings, and coordinating with participants for follow-up programs.
Ninth	Teaching Goals and Values	Detachment, self as context, the tombstone exercise, relationship between goals and values
Tenth	Learning to Know Your Values	Evaluation of values, self as context, the chessboard metaphor, clarification of the values, and commitment
Eleventh	Final Review	Review and summing up

Table 2. Summary of gradual desensitization sessions

Session	Objectives	Content
First	Explanation of intervention goals	Introducing and getting to know the client with the instructor, explaining the goals and content of the intervention, examining the symptoms of social phobia, and giving homework at home.



Second	Understanding Social Phobia	Preparing a sequence of events that cause social phobia, teaching strategies to increase alternative positive behaviors when behaving as a result of social phobia, and reviewing the homework of the previous session.
Third	Methods of dealing with social phobia	Sorting panic-causing events from mild to severe and teaching strategies to overcome social phobia.
Fourth	Methods for increasing relaxation	Getting to know the muscles and learning to relax with breathing and stress-scoring
Fifth	Facing a stressful situation	More practice for teaching relaxation and presenting one-on-one speech in front of a group of people
Sixth	Dysfunctional Behaviors	Management of inefficient behaviors
Seventh	Recognizing Situational Behaviors	Visualizing the situations that cause social phobia and drawing the correct behavior in these situations
Eighth	Identifying corrective behaviors	More practice to visualize situations that cause social phobia and strengthen corrective behaviors
Ninth	Final Review and Practical Practice	Creating real exposure to social phobia-causing items and practice for exposure along with post-test

This study used descriptive measures such as mean and standard deviation for descriptive statistics, and analysis of covariance for inferential statistics. The data were analyzed using Kruskal-Wallis H, ANOVA, MANCOVA, and analysis of covariance with repeated measures at a significance level of 0.05. The researcher used the MANCOVA method to examine the differences between groups in the condition that the pre-test was included as a control variable in the analysis and the post-test and follow-up scores were examined simultaneously. Similarly, the ANCOVA with repeated measures method was used to examine the effect of time on the differences between groups simultaneously. SPSS version 27 and JASP software version 18.1.0 were used for all statistical analyses. The

Kolmogorov-Smirnov test was used to assess normal distribution, while Levene's test was employed to evaluate the homogeneity of variances. Additionally, Bonferroni's post hoc test was conducted to compare the means.

Results

Table 3 presents the demographic variables of the participants. These included age (20-30, 31-40, and 41+ years), education level (Diploma, Bachelor's, and Higher education), gender (male and female), and duration of infection (1-2, 2-3, 3-4, and 4+ years). The Kruskal-Wallis H test revealed no significant differences among participants based on these demographic variables (P -value>0.05).

Table 3. Demographic characteristics in the experimental and control groups

Variables	Demographic information	Emotional intelligence	%	Gradual desensitization techniques	%	Control	%	Kruskal-Wallis H	P-value
Age	20-30	3	25.0%	3	27.3%	4	30.8%	0.667	0.717
	31-40	6	50.0%	4	36.4%	7	53.8%		
	41 and up	3	25.0%	4	36.4%	2	15.4%		
	Total	12	100.0%	11	100.0%	13	100.0%		
Education	Diploma	6	50.0%	5	45.5%	6	46.2%	0.188	0.910
	Bachelor	5	41.7%	4	36.4%	5	38.5%		
	(PhD, MSc)	1	8.3%	2	18.2%	2	15.4%		
	Total	12	100.0%	11	100.0%	13	100.0%		
Gender	Man	8	66.7%	7	63.6%	6	46.2%	1.228	0.541
	Female	4	33.3%	4	36.4%	7	53.8%		
	Total	12	100.0%	11	100.0%	13	100.0%		
Duration of infection	1-2	6	50.0%	7	63.6%	7	53.8%	0.412	0.814
	2-3	2	16.7%	1	9.1%	3	23.1%		

3-4	2	16.7%	2	18.2%	2	15.4%
+4	2	16.7%	1	9.1%	1	7.7%
Total	12	100.0%	11	100.0%	13	100.0%

The researcher also examined the mean and standard deviation of the research variables in the research groups in Table 4.

In Table 4, the mean and standard deviation of the participants' scores for the research variables are displayed. It is evident from the table that the mean scores for Fear and Avoid variables in the pre-test stage did not differ significantly across the three groups: Emotional Intelligence, Gradual Desensitization Techniques, and the control group. However, the average scores in the Post-test and Follow-up stages of the experimental groups decreased compared to the control group. Nevertheless, there was no significant difference between the groups and stages in terms of physiological discomfort. The researcher presented the results of the analysis of the covariance test with repeated measurements in Table 5.

In Table 5, the results of the covariance analysis show that the P-value for the Between-Subjects Effects in the Fear variable was significant ($P\text{-value} < 0.001$). This means that, while keeping the effects of the Pre-test stage constant, a significant difference was observed between the research groups, indicating a notable distinction between them. However, the p-value for the Within-Subjects Effects in the fear variable was not significant ($P\text{-value} = 0.094$). Also, the P-value in Between-Subjects Effects in the Avoid variable was significant ($P\text{-value} < 0.001$). As a result, a significant difference was observed between the research groups while keeping the effects of the Pre-test stage constant. Similarly, the P-value was significant for the interaction effects between time and groups for the Avoid variable ($P\text{-value} = 0.002$). The analysis found no difference in physiological discomfort among the groups and stages, indicating that the intervention methods did not have an effect on physiological discomfort.

Table 4. Description of research variables

Variable	Time	Groups	Mean	SD	Shapiro-Wilk	P-value	Min	Max
Fear	Pre-test	Emotional Intelligence	14.333	1.614	0.947	0.600	12	17
		Gradual desensitization techniques	14.636	1.567	0.908	0.232	12	17
		Control	15.308	1.251	0.874	0.059	13	17
	Post-test	Emotional Intelligence	12.833	1.403	0.906	0.187	11	15
		Gradual desensitization techniques	13.091	1.578	0.854	0.049	11	15
		Control	15.000	1.414	0.900	0.135	13	17
	Follow-up	Emotional Intelligence	12.750	1.485	0.897	0.145	11	15
		Gradual desensitization techniques	12.000	1.844	0.849	0.042	10	15
		Control	15.154	1.405	0.867	0.047	13	17
Avoid	Pre-test	Emotional Intelligence	17.833	1.749	0.975	0.954	15	21
		Gradual desensitization techniques	17.091	2.300	0.953	0.679	14	21
		Control	16.308	1.548	0.954	0.656	14	19
	Post-test	Emotional Intelligence	16.167	1.267	0.936	0.449	14	18
		Gradual desensitization techniques	15.727	1.272	0.940	0.518	14	18
		Control	17.692	1.494	0.945	0.524	15	21
	Follow-up	Emotional Intelligence	15.667	1.155	0.872	0.068	14	18
		Gradual desensitization techniques	12.636	1.362	0.918	0.301	11	15
		Control	17.000	1.354	0.928	0.317	15	19
Physiological discomfort	Pre-test	Emotional Intelligence	8.667	1.371	0.908	0.200	7	11
		Gradual desensitization techniques	8.818	1.328	0.927	0.379	7	11
		Control	8.692	1.251	0.908	0.174	7	11
	Post-test	Emotional Intelligence	8.333	1.875	0.902	0.171	6	11
		Gradual desensitization techniques	8.636	1.286	0.919	0.311	7	11
		Control	8.308	1.316	0.852	0.030	7	11
	Follow-up	Emotional Intelligence	8.250	1.603	0.950	0.641	6	11
		Gradual desensitization techniques	8.273	1.272	0.940	0.518	6	10
		Control	8.462	1.266	0.893	0.108	7	11

Table 5. Covariance analysis test

Variable	Source	Sum of Squares	Mean Square	F	P-value	Eta Squared
Fear	Time	3.335	3.335	2.974	0.094	0.085
	Time*Group	4.392	2.196	1.958	0.158	0.109



Avoid	Time*Pre-test	2.878	2.878	2.567	0.119	0.074
	Group	87.345	43.672	12.316	<0.001	0.435
	Time	3.242	3.242	1.944	0.173	0.057
	Time*Group	24.727	12.363	7.414	0.002	0.317
	Time*Pre-test	5.979	5.979	3.586	0.067	0.101
	Group	112.288	56.144	32.566	<0.001	0.671
Physiological discomfort	Time	5.447	5.447	2.754	0.107	0.079
	Time*Group	0.977	0.488	0.247	0.783	0.015
	Time*Pre-test	5.282	5.282	2.671	0.112	0.077
	Group	0.237	0.118	0.055	0.947	0.003

According to Table 6 and Figure 3 to 5, a significant difference was found between the Avoid component in the Emotional Intelligence group in the post-test and follow-up phases, along with the gradual desensitization techniques in the follow-up phase (P-value<0.001). It is confirmed that the method of gradual desensitization techniques was more effective in reducing Avoid than Emotional Intelligence, considering the significance of the difference and the higher average scores of Avoid in the Emotional Intelligence group. Likewise, gradual desensitization techniques showed significant differences from the control group at both the post-test stage (P-value=0.006) and follow-up stage (P-value<0.001). Given the substantial difference and the lower average scores for "Avoid" in the Gradual Desensitization Techniques group, it is evident that the method is effective in reducing avoidance, and this effect has been long-lasting. Similarly, a significant distinction was observed between the Gradual desensitization techniques in the Post-test stage and the Gradual desensitization techniques group in the Follow-up

stage (P-value<0.001). This shows that three months after implementing the interventions, avoidance behavior is decreasing. A significant difference was found between the gradual desensitization techniques and the control group during the follow-up phase (P-value<0.001). Similarly, Emotional Intelligence was found to be significantly different in the Follow-up phase compared to the Control group in the Post-test phase (P-value=0.011).

Table 7 shows a significant difference (P-value<0.01) between the Emotional Intelligence and Gradual Desensitization groups and the control group. The decrease in mean scores in the experimental groups at post-test and follow-up, compared to the control group, confirms the positive and lasting effect of both interventions on reducing fear. However, there were no significant differences between the two experimental groups, suggesting similar effectiveness of both intervention methods. However, no significant differences were found among the experimental groups, indicating no variance between the intervention methods

Table 6. Post Hoc Comparisons - group*time

Variable			Mean Difference	SE	t	bond
Avoid	Emotional Intelligence, Post-test	Gradual desensitization techniques, Post-test	0.376	0.551	0.683	1.000
		Control, Post-test	-1.656	0.553	-2.993	0.059
		Emotional Intelligence, Follow-up	0.250	0.544	0.459	1.000
		Gradual desensitization techniques, Follow-up	3.456	0.552	6.264	<0.001
		Control, Follow-up	-0.723	0.538	-1.344	1.000
	Gradual desensitization techniques, Post-test	Control, Post-test	-2.032	0.542	-3.750	0.006
		Emotional Intelligence, Follow-up	-0.127	0.552	-0.229	1.000
		Gradual desensitization techniques Follow-up	3.080	0.551	5.593	<0.001
		Control, Follow-up	-1.099	0.541	-2.030	0.697
	Control, Post-test	Emotional Intelligence, Follow-up	1.905	0.538	3.543	0.011
		Gradual desensitization techniques, Follow-up	5.111	0.541	9.445	<0.001
		Control, Follow-up	0.933	0.522	1.787	1.000
Emotional Intelligence, Follow-up	Gradual desensitization techniques, Follow-up	3.206	0.551	5.819	<0.001	
	Control, Follow-up	-0.972	0.553	-1.758	1.000	
Gradual desensitization techniques, Follow-up		Control, Follow-up	-4.178	0.542	-7.711	<0.001

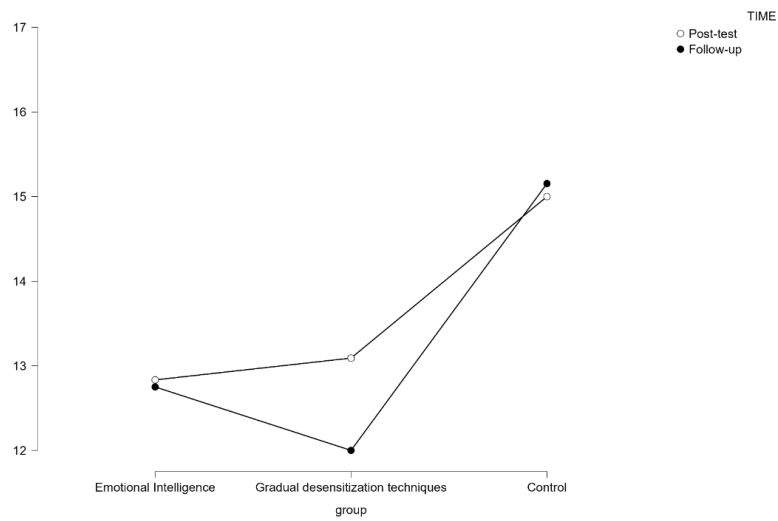


Figure 3. Fear's changing trend between stages

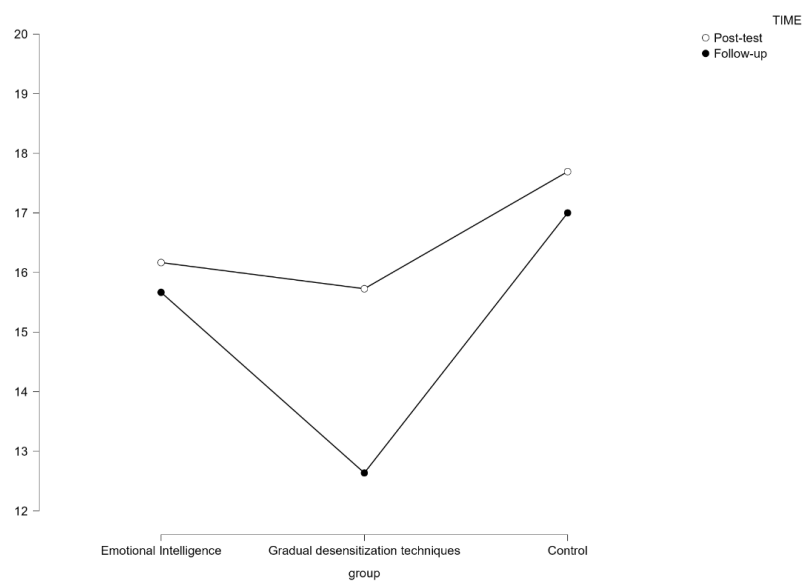


Figure 4. Avoid's change trend between stages

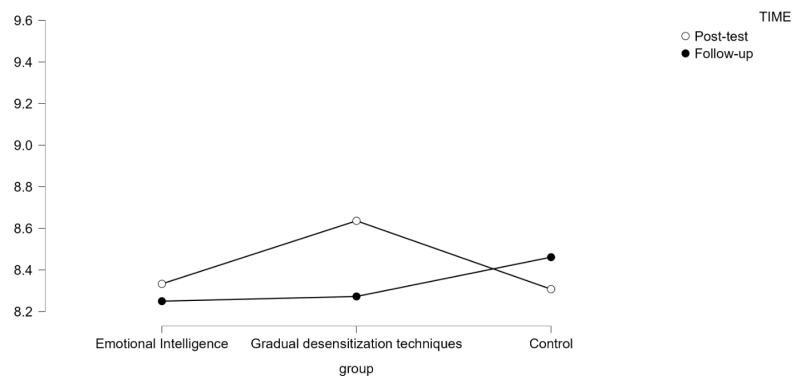


Figure 5. The trend of changes in physiological discomfort between stages

Table 7. Bonferroni's post hoc test to examine differences between three groups

Variables	Time	(I) group	(J) group	Mean Difference	Std. Error	P-value
Fear	Post-test	Emotional Intelligence	Gradual desensitization techniques	-0.287	0.619	1.000
		Emotional Intelligence	Control	-2.261*	0.616	0.003
		Gradual desensitization techniques	Control	-1.974*	0.617	0.009
	Follow-up	Emotional Intelligence	Gradual desensitization techniques	0.806	0.660	0.693
		Emotional Intelligence	Control	-2.223*	0.656	0.006
		Gradual desensitization techniques	Control	-3.029*	0.657	0.001

Discussion

The aim of this study was to compare the effectiveness of emotional intelligence training and progressive desensitization techniques in the treatment of clients with social phobia disorder. Based on the outcomes of the current study, Both gradual desensitization techniques and emotional intelligence training significantly reduced avoidance behaviors. However, participants undergoing desensitization reported more sustained improvements over time. While both methods were equally effective in reducing self-reported fear, neither intervention produced measurable changes in physiological discomfort symptoms. For instance, Participant A reported feeling more confident and less anxious during social interactions after completing the desensitization sessions.

In the present study, it was found that both intervention methods resulted in a decrease in avoidance and fear among individuals with social phobia disorder. This aligns with previous research that has indicated the impact of social intelligence and desensitization on reducing phobia.^{9, 14, 16} A study found that low levels of emotional intelligence are correlated with the occurrence of anxiety symptoms.⁹ Desensitization therapy was found to be effective in reducing speech phobia and social phobia symptoms in students with social phobia disorder.¹⁴ The findings of Izzah et al. (2023) indicate that desensitization techniques can effectively reduce anxiety.¹⁶ Another finding of the study suggests that both emotional intelligence training and progressive desensitization techniques have no effect on the physiological discomfort of individuals with phobia, which contradicts previous studies.¹⁰

¹⁵ According to a study, desensitization is an effective way to improve phobia disorder.¹⁵ A study also suggested that emotional intelligence can be used to reduce anxiety symptoms.¹⁰ When explaining the discrepancy in this study compared to the research by Zhang et al. (2023), it can be attributed to individual and cultural differences among Iranian samples and foreign samples, as well as the use of different tools to measure emotional intelligence processes, which may have caused the misalignment.¹⁰ Several factors may underlie this discrepancy. One possibility is the reliance on self-report tools such as the SPIN questionnaire, which may not accurately capture physiological symptoms due to response bias.²² Individuals with social phobia might underreport symptoms like blushing or sweating to avoid perceived judgment, leading to inaccurate physiological assessments. As Clark and Beck (2010) point out, self-report measures in anxiety-related studies may not fully reflect the complexity of cognitive and physiological responses. Moreover, cultural and individual differences in expressing and reporting discomfort, as well as the nature and duration of the intervention, could also account for the divergence in findings.²⁵

When explaining other findings, it is important to note that emotional abilities generally help individuals cope with daily life problems, maintain a positive attitude towards events, and broaden their perspective and insight. Teaching emotional intelligence can lead to improved physical and mental health, increased satisfaction, and reduced fear and avoidance in anxious situations.⁶ Understanding how to manage emotions enables individuals to recognize their emotional states and modify their responses, actions, thoughts, and behavior to

effectively deal with emotional experiences. Moreover, possessing a high level of emotional intelligence can help individuals handle anxiety-inducing situations by improving emotional understanding, recognizing negative emotions, and enhancing overall life satisfaction.⁸ Emotion regulation fosters personal growth by empowering individuals to manage emotions effectively, transforming negativity into positivity. It also enhances self-awareness, and self-control, and reduces fear and anxiety. Emotion regulation can help people adapt to their environment, cope with anxieties and fears, and experience greater psychological balance. Regular desensitization has the added benefit of addressing both the cognitive and physiological aspects of fear and avoidance, leading to long-term improvement in anxiety reduction outcomes.¹¹ Regular desensitization is based on the assumption that most abnormal behaviors are learned and can be unlearned. It helps reduce overall anxiety, avoidance, and fear by replacing maladaptive reactions with more adaptive ones. During training sessions, problem-solving techniques and problem-oriented methods are employed. Logic replaces emotion-based strategies, such as avoidance and fear, in solving everyday problems.¹³ This method is important because, after reaching a state of relaxation, the person imagines the anxious hierarchy and, in this way, some of the anxiety response is reduced. This allows the client to gradually approach the situation they were afraid of before. As the desensitization process progresses, they can slowly adapt to the situation and encounter real-world anxiety.²⁶

This study has limitations that warrant consideration. Some participants struggled with consistent attendance, and factors such as family support were uncontrolled. Social phobia's nature, including fears of embarrassment through symptoms like blushing or sweating, makes engagement in therapy challenging. Furthermore, socially anxious individuals might provide feedback in anonymous settings that differ from actual behavior, suggesting potential response bias. Future studies should combine self-reports with observational and interview data to enhance accuracy. It is also recommended to examine these interventions in other phobia disorders for broader validation.

Conclusion

The findings of this study demonstrate that both emotional intelligence training and regular desensitization techniques effectively reduce fear and avoidance behaviors in individuals with social phobia disorder. For example, some participants reported feeling more confident and willing to engage in social situations after the interventions. However, neither method showed significant impact on physiological discomfort symptoms. Given these results, mental health professionals—including specialists, psychologists, psychiatrists, and counselors—are encouraged to consider incorporating these approaches into treatment plans as promising educational and therapeutic strategies. Beyond individual benefits, these interventions have broader societal implications: reducing symptoms of social phobia could contribute to decreased workplace absenteeism, enhanced academic achievement, and improved overall quality of life. Therapists and community psychologists can utilize these findings to design targeted

interventions that combine desensitization techniques with emotional intelligence training. Furthermore, regular classes and workshops are recommended to help clients maintain progress and further reduce social phobia symptoms over time.

Ethical Considerations

The research involving participants followed the ethical guidelines established by the Sari Branch of Islamic Azad University, under the code IR.IAU.SARI.REC.1403.117.

Acknowledgment

The authors appreciate the help and valuable contributions from those involved which contributed to the success of the research.

Conflict of Interest

The authors are grateful to all those who helped in conducting the research.

Funding

This study did not receive any financial support from external sources.

References

- Antici EE, Kuhlman KR, Treanor M, Craske MG. Salivary CRP predicts treatment response to virtual reality exposure therapy for social phobia disorder. *Brain, Behavior, and Immunity*. 2024 May 1;118:300-9. doi: 10.1016/j.bbi.2024.03.002
- Butler MI, Bastiaanssen TF, Long-Smith C, Morkl S, Berding K, Ritz NL, Strain C, Patangia D, Patel S, Stanton C, O'Mahony SM. The gut microbiome in social phobia disorder: evidence of altered composition and function. *Translational psychiatry*. 2023 Mar 20;13(1):95. doi: 10.1038/s41398-023-02325-5
- Villalongo Andino M, Garcia KM, Richey JA. Can dialectical behavior therapy skills group treat social phobia disorder? A brief integrative review. *Frontiers in Psychology*. 2024 Jan 8;14:1331200. doi: 10.3389/fpsyg.2023.1331200
- Mohammadi MR, Salehi M, Khaleghi A, Hooshyari Z, Mostafavi SA, Ahmadi N, Hojjat SK, Safavi P, Amanat M. Social phobia disorder among children and adolescents: A nationwide survey of prevalence, sociodemographic characteristics, risk factors, and co-morbidities. *Journal of Affective Disorders*. 2020 Feb 15;263:450-7. doi: 10.1016/j.jad.2019.12.015
- Chen J, Short M, Kemps E. Interpretation bias in social phobia: A systematic review and meta-analysis. *Journal of Affective Disorders*. 2020 Nov 1;276:1119-30. doi: 10.1016/j.jad.2020.07.121
- Foij S, Vajdani M, Salehinyi H, Khosrorad R. The effect of emotional intelligence training on general health promotion among nurses. *Journal of Education and Health Promotion*. 2020;9. doi: 10.4103/jehp.jehp_134_19
- Durham MR, Smith R, Cloonan S, Hildebrand LL, Woods-Lubert R, Skalamera J, Berryhill SM, Weihs KL, Lane RD, Allen JJ, Dailey NS. Development and validation of an online emotional intelligence training program. *Frontiers in Psychology*. 2023 Aug 17;14:1221817. doi: 10.3389/fpsyg.2023.1221817
- Laranjeira C, Lesinskiene S. Break the mental health stigma: the role of emotional intelligence. *Frontiers in Psychiatry*. 2024 Feb 23;15:1386289. doi: 10.3389/fpsyg.2024.1386289
- Kulkarni PY, Velhal G. Low emotional intelligence: A precursor of mental health derangements among adolescents. *Cureus*. 2023 Oct 1;15(10). doi: 10.7759/cureus.46321
- Zhang X, Cheng B, Yang X, Suo X, Pan N, Chen T, Wang S, Gong Q. Emotional intelligence mediates the protective role of the orbitofrontal cortex spontaneous activity measured by fALFF against depressive and anxious symptoms in late adolescence. *European Child & Adolescent Psychiatry*. 2023 Oct;32(10):1957-67. doi: 10.1007/s00787-022-02020-8



11. Parivar M, Rezaie A, Babapor Kheiroddin J. Effects of Emotional Self-Regulation Strategies and Regular Desensitization on Phobia and Fear of Adult Dental Patients: A Clinical Trial.
12. Reddy YJ, Sudhir PM, Manjula M, Arumugham SS, Narayanaswamy JC. Clinical practice guidelines for cognitive-behavioral therapies in phobia disorders and obsessive-compulsive and related disorders. *Indian journal of psychiatry*. 2020 Jan 1;62(Suppl 2):S230-50. doi: [10.4103/psychiatry.IndianJPsychiatry_773_19](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_773_19)
13. Asadi Majareh S, Moghtader L, Mousavi SM. The Effectiveness of Systematic Desensitization and Self-Regulating on Students' Internet Addiction. *Quarterly Journal of Child Mental Health*. 2021 May 10;8(1):97-109. doi: [10.52547/jcmh.8.1.8](https://doi.org/10.52547/jcmh.8.1.8)
14. Hekmatian Fard S, Rajabi S, Hoseini FS. The Effectiveness of Eye Movement Desensitization and Reprocessing Therapy on the Anxiety Speech and Educational self-efficacy In students With Social phobia. *Counseling Culture and Psychotherapy*. 2021 Mar 21;12(45):269-94.
15. Badiie Aval M, Bahrami B, Rafiee Shafigh M. Comparing the Efficacy of Systematic Desensitization and expressive Desensitization on Generalized Phobia Disorder and exam Anxiety among Students. *medical journal of Mashhad University of medical sciences*. 2021 Mar 21;64(1):2265-76.
16. Izzah AN, Sa'idah I. Systematic Desensitization Technique's Effectiveness in Reducing Public Speaking Phobia in MAN 1 Pamekasan Students. *Al-Hiwar Jurnal Ilmu dan Teknik Dakwah*. 2023 Jun 29;11(1):1-8. doi: [10.18592/al-hiwar.v11i1.8922](https://doi.org/10.18592/al-hiwar.v11i1.8922)
17. Evans R, Clark DM, Leigh E. Are young people with primary social phobia disorder less likely to recover following generic CBT compared to young people with other primary phobia disorders? A systematic review and meta-analysis. *Behavioral and Cognitive Psychotherapy*. 2021 May;49(3):352-69. doi: [10.1017/S135246582000079X](https://doi.org/10.1017/S135246582000079X)
18. Kang H. Sample size determination and power analysis using the G*Power software. *J Educ Eval Health Prof*. 2021;18:17. doi: [10.3352/jeehp.2021.18.17](https://doi.org/10.3352/jeehp.2021.18.17)
19. Bradberry T, Greaves J. *Emotional Intelligence 2.0*. TalentSmart; 2009.
20. Amirkhanloo A, Doosti Y, Donyavi R. The Comparison of the Effectiveness of Cognitive-Behavioral Therapy with Emotional Intelligence Training on Social Adjustment in Adolescents with Conduct Disorder. *Applied Family Therapy Journal (AFTJ)*. 2022 Dec 1;3(4):217-42. doi: [10.61838/kman.aftj.3.4.13](https://doi.org/10.61838/kman.aftj.3.4.13)
21. Asadi Majareh S, Moghtader L, Mousavi SM. The Effectiveness of Systematic Desensitization and Self-Regulating on Students' Internet Addiction. *Quarterly Journal of Child Mental Health*. 2021 May 10;8(1):97-109. doi: [10.52547/jcmh.8.1.8](https://doi.org/10.52547/jcmh.8.1.8)
22. Connor KM, Davidson JR, Churchill LE, Sherwood A, Weisler RH, Foa E. Psychometric properties of the Social Phobia Inventory (SPIN): New self-rating scale. *The British Journal of Psychiatry*. 2000 Apr;176(4):379-86. doi: [10.1192/bjp.176.4.379](https://doi.org/10.1192/bjp.176.4.379)
23. Robatmili S, Karimi M. The prediction of social phobia in adolescents based on meta-cognitive beliefs, mindfulness, and fear of negative evaluation. *Social Psychology Research*. 2018 Nov 22;8(31):51-68.
24. Zhao J, Kong F, Wang Y. The role of social support and self-esteem in the relationship between shyness and loneliness. *Personality and Individual Differences*. 2013 Apr 1;54(5):577-81. doi: [10.1016/j.paid.2012.11.003](https://doi.org/10.1016/j.paid.2012.11.003)
25. Clark DA, Beck AT. *Cognitive therapy of anxiety disorders: Science and practice*. Guilford Press; 2011 Aug 10.
26. Fallah M, Basharpour S, Bagheri A. Comparing the Effectiveness of Systematic Desensitization and Distraction on Pain and Fear in Children with Dental Problems. *Journal of Ardabil University of Medical Sciences*. 2016 Apr 10;16(1):74-84.

